PS26.

Long-Term Outcome After Open (OR) and Endovascular Repairs (EVAR) of Abdominal Aortic Aneurysms (AAAs) in Matched Cohorts Using Propensity Score Modeling

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Objectives: To compare long-term outcomes after OR vs EVAR of AAAs at a tertiary center.

Methods: Clinical data of consecutive AAA patients treated electively between 2000 and 2011 were retrospectively reviewed. Primary endpoint was all-cause mortality, secondary endpoints were complications, reinterventions and ruptures. Propensity score-based matching included age, gender, year of intervention and comorbidities was performed to compare outcomes.

Results: There were 1350 matched cohorts (mean age 74 ± 7 years). Thirty-day mortality was 1.3% after OR, 1.0% after EVAR ($P = .40$). Early complications were lower after EVAR (13% vs 25%; $P < .0001$). Mean follow-up was 4.2 years (30 days-12.7 years). At 5 years, all-cause mortality was lower, freedom from reintervention higher after OR (23% vs 32%, 87% vs 74%); freedom from complications the same (66%). In multi-variable analysis, SVS-comorbidity score and age were associated with all-cause mortality. Results were similar in 1791 unmatched cohorts. There were 2 ruptures after OR, 8 after EVAR ($P = .02$).

Conclusions: Both elective OR and EVAR have low early mortality, EVAR has fewer early complications. Advanced age and comorbidities predict high late mortality. This study failed to support long-term benefits of EVAR, since the procedure was associated with increased rates of late all-cause mortality, reinterventions and small but definite risk of late rupture.

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PS28.

Treatment of Type B Aortic Dissection in the Endovascular Era

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Objectives: The optimal management of Type B Aortic Dissection (TBAD) remains controversial in the era of endovascular therapies. This study reports the outcomes of different treatment paradigms for TBAD.

Methods: A retrospective review was undertaken of all patients with TBAD from June 2006 to June 2012. Demographics, hospital course and follow up visits were analyzed. Patients who underwent surgical interventions were compared to those with medical therapy. Survival rates and predictors of outcome were determined using the Kaplan-Meier method with Cox proportional hazards.

Results: Out of 276 consecutive patients who were hospitalized during this period with a confirmed thoracic dissection, 134 (48%) had TBAD. Sixty-two (46%) were women and the mean age was 66.4 ± 14.9. Median follow-up was 22.4 (0, 184) month. Thirty-five patients underwent surgical intervention with 20 Thoracic Endovascular Aortic Repair (TEVAR) and open surgery in 15. The overall 30-day mortality was 7% and cumulative survival rates at 1 year, 3 years and 5 years were 85% (79, 91), 68% (59, 78) and 57% (47, 69) with no difference between medical vs surgical groups ($P = .8$) and TEVAR vs open surgery group ($P = 1.0$). Sixty-six (50%) patients developed aneurysmal expansion, which required surgical intervention in 26 (hazard ratios [HR], 0.99; $P = .96$). Malperfusion and rupture only occurred in 5 (HR, 1.57; $P = .54$) and 5 (HR, 3.64; $P = .01$) patients respectively. Multivariate analysis for overall survival found renal insufficiency (HR, 2.6; $P = .004$) and age (HR, 1.06; $P < .0001$) were associated with greatest mortality. Intramural hematoma was not a significant predictor of survival (HR, 0.49; $P = .11$).

Conclusions: Medical therapy remains the mainstay of treating TBAD with low morbidity and acceptable survival rates. Surgical interventions including TEVAR are indicated in selected patients with malperfusion or aneurysmal expansion.

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Table.

	Matched (n = 1350)			*Unmatched (n = 1791)*		
	OR (n = 675)	*EVAR (n = 675)*	P	*OR (n = 898)*	*EVAR (n = 893)*	P
Male (%)	583 (86)	580 (86)	.81	749 (83)	785 (88)	.007
30-day mortality (%)	9 (1.3)	7 (1.0)	.40	11 (1.2)	10 (1.1)	.86
5-year all-cause mortality (%)	23	32	.0001	20	34	.0001
5-year rupture (%)	0	0.54	.002	0.23	0.53	.02